



 **TETRA**
SELECTED FOR QUALITY

TETRA SPERBER
LAYER PARENT STOCK
CHARTS AND GRAPHS

Performance Specifications of TETRA SPERBER Parent Stock

Liveability	
0-20 weeks of age	96-98%
21-72 weeks of age	90-94%
Feed consumption	
0-20 weeks of age	7.8-8.6 kg
21-72 weeks of age	42.3-46.3 kg
Body weight	
Females at 72 weeks of age	2.0-2.2 kg
Males at 72 weeks of age	3.0-3.2 kg
Maturity	
Age at 50% production	21-22 weeks
Peak production	26-33 weeks
Egg production per hen housed	
Until 72 weeks of age	275-285 pcs
Hatching egg production per hen housed	
Until 72 weeks of age	248-258 pcs
Hatchability	80-85%
Saleable chicks per hen housed	
Until 72 weeks of age	97-107 pcs

Space and Equipment Requirements for TETRA SPERBER Parent Stock

Age (weeks)		0-6	7-17	over 17
Density (bird/m ²)	Floor system	20-24	10-12	7
	Aviary system	26-28	26-28	14-16
	Cage system	80-50	40-25	10-13
Drinking space	Birds/nipple	10-12	8	4-6
	Birds/drinker (ø 46 cm)	100-130		
Feeding space	Through or circular feeder (space/bird)	4 cm plus extra feeding surface in the first 4 days	7 cm	10 cm

** Place chick-paper alongside the drinkers' lines or cover the cage floor and strew feed on it in a thin layer. Check the availability of feed and water.*

Temperature Requirements
for TETRA SPERBER Parent Stock

Age (days)	Temperature (°C) at Chicks' Level
0-2	34-35
3-4	32-33
5-7	32
8-14	30
15-21	27
22-28	24
29-35	22
35-	18-20

Lighting Programme
for TETRA SPERBER Parent Stock

Age (weeks)	Hours of Light	Light intensity (lux)
0-2 days	23	20-30
1	22	20-30
2	16	10 (-20)
3	15	5 (-10)
4	14	5 (-10)
5	13	5 (-10)
6	12	5 (-10)
7	11	5 (-10)
8	10	5 (-10)
9	10	5 (-10)
10	10	5 (-10)
11	10	5 (-10)
12	10	5 (-10)
13	10	5 (-10)
14	10	5 (-10)
15	10	5 (-10)
16	10	5 (-10)
17	10	5 (-10)
18	11	10 (-20)
19	12	10 (-20)
20	13	10 (-20)
21	14	10 (-20)
22	14	10 (-20)
23	14	10 (-20)
24	14	10 (-20)
25-throughout production	14 (-16)	10 (-20)

Weight Development and Feed Intake of TETRA SPERBER Parent Stock

Age (weeks)	Parent Stock - FEMALES		Parent Stock - MALES		Feed Consumption		Feed Type
	Body Weight (g)		Body Weight (g)				
	Average	Range	Average	Range	Average (g/day)	Cumulative (kg)	
1	71	69-74	72	69-75	12	0.1	Starter I
2	128	122-133	144	138-150	21	0.2	
3	194	186-202	237	227-246	26	0.4	
4	265	255-276	340	326-353	31	0.6	Starter II
5	337	323-350	464	445-482	36	0.9	
6	418	401-435	587	564-611	41	1.1	
7	510	490-530	711	682-739	46	1.5	
8	602	578-626	834	801-868	53	1.9	
9	694	666-721	958	920-996	58	2.3	Grower
10	785	754-817	1082	1038-1125	64	2.7	
11	877	842-912	1205	1157-1253	67	3.2	
12	969	930-1008	1329	1276-1382	70	3.7	
13	1061	1018-1103	1442	1384-1500	72	4.2	
14	1142	1097-1188	1566	1503-1628	74	4.7	
15	1224	1175-1273	1689	1622-1757	77	5.3	
16	1306	1253-1358	1813	1740-1885	79	5.8	
17	1387	1332-1443	1936	1859-2014	82	6.4	
18	1469	1410-1528	2050	1968-2132	85	7.0	Pre-layer upto 5% prod.
19	1550	1488-1612	2163	2076-2250	90	7.6	
20	1612	1547-1676	2266	2175-2357	93	8.2	
21	1673	1606-1740	2359	2264-2453	98	0.7	Breeder I from 5% prod.
22	1734	1665-1803	2441	2343-2539	103	1.4	
23	1785	1714-1856	2513	2413-2614	108	2.2	
24	1826	1753-1899	2593	2489-2696	113	3.0	
25	1877	1802-1952	2670	2563-2777	115	3.8	
30	1918	1841-1994	2747	2637-2857	116	7.8	
35	1938	1860-2016	2824	2711-2937	116	11.9	
40	1958	1880-2037	2902	2786-3018	116	16.0	
45	1979	1900-2058	2951	2833-3069	116	20.1	
50	1999	1919-2079	3005	2884-3125	115	24.1	Breeder II below 80% prod.
55	2009	1929-2090	3029	2908-3150	115	28.1	
60	2020	1939-2100	3054	2932-3176	115	32.2	
65	2030	1949-2111	3074	2951-3196	115	36.2	
70	2040	1958-2122	3086	2962-3209	115	40.3	
72	2040	1958-2122	3090	2966-3214	115	44.3	

* Always check average body weight of the flock before switching to the next feed type. If body weight is lower than stated, do not move on from one diet to another. Control the body weight frequently, until birds reach their target weight. Feed amount must be adjusted to production intensity and uniformity. Check body weight weekly around peak production, increase daily feed amount as production intensity rises.

Nutritional Recommendation for TETRA SPERBER Parent Stock (Growing Period)

Feed Type		Starter I	Starter II	Grower	Pre-layer
Age (weeks)		1-3	4-8	9-17	18-20
ENERGY & NUTRIENT					
Met. energy	MJ/kg	12.40	12.00	11.50	11.70
Met. energy	kcal/kg	2950	2870	2750	2800
Crude protein	%	20.00	18.00	15.50	17.50
AMINO ACIDS, TOTAL					
Lysine	%	1.20	1.00	0.75	0.85
Methionine	%	0.48	0.42	0.35	0.40
Methionine + cysteine	%	0.84	0.74	0.61	0.70
Threonine	%	0.75	0.65	0.50	0.60
Valine	%	0.87	0.75	0.60	0.65
Arginine	%	1.22	0.90	0.77	0.82
Tryptophan	%	0.24	0.20	0.17	0.18
Isoleucine	%	0.83	0.66	0.58	0.66
AMINO ACIDS, DIGESTIBLE					
Lysine	%	1.00	0.82	0.60	0.70
Methionine	%	0.40	0.35	0.30	0.35
Methionine + cysteine	%	0.70	0.60	0.50	0.58
Threonine	%	0.63	0.55	0.42	0.50
Valine	%	0.76	0.65	0.50	0.54
Arginine	%	1.02	0.84	0.63	0.68
Tryptophan	%	0.20	0.18	0.14	0.15
Isoleucine	%	0.69	0.62	0.49	0.52
Linoleic acid	%	1.50	1.25	1.00	1.50
Calcium	%	1.00	1.00	1.00	2.50
Phosphorus, available	%	0.48	0.44	0.38	0.44
Sodium	%	0.16-0.18	0.16-0.17	0.16-0.17	0.16-0.17
Chloride	%	0.15-0.30	0.15-0.30	0.15-0.30	0.15-0.30

Nutritional Recommendation for TETRA SPERBER Parent Stock (Production Period)

Feed Type		Breeder I from 5% Production			Breeder II below 80% Production		
Daily feed consumption		110 g	115 g	120 g	110 g	115 g	120 g
ENERGY & NUTRIENT							
Met. energy	MJ/kg	11.70	11.50	11.25	11.60	11.40	11.20
Met. energy	kcal/kg	2800	2750	2700	2780	2720	2680
Crude protein	%	18.00	17.00	16.00	17.00	16.00	15.00
AMINO ACIDS, TOTAL							
Lysine	%	0.87	0.82	0.78	0.83	0.79	0.75
Methionine	%	0.43	0.41	0.39	0.42	0.39	0.37
Methionine + cysteine	%	0.75	0.71	0.68	0.74	0.70	0.66
Threonine	%	0.60	0.57	0.54	0.58	0.55	0.53
Valine	%	0.70	0.66	0.63	0.67	0.63	0.60
Arginine	%	0.88	0.83	0.79	0.84	0.79	0.75
Tryptophan	%	0.18	0.17	0.16	0.17	0.16	0.15
Isoleucine	%	0.65	0.62	0.60	0.62	0.59	0.57
AMINO ACIDS, DIGESTIBLE							
Lysine	%	0.71	0.67	0.64	0.69	0.65	0.62
Methionine	%	0.38	0.36	0.34	0.36	0.34	0.32
Methionine + cysteine	%	0.62	0.59	0.56	0.61	0.58	0.55
Threonine	%	0.49	0.46	0.44	0.48	0.46	0.43
Valine	%	0.57	0.54	0.51	0.55	0.52	0.50
Arginine	%	0.72	0.68	0.64	0.68	0.64	0.61
Tryptophan	%	0.15	0.14	0.13	0.14	0.13	0.12
Isoleucine	%	0.54	0.51	0.49	0.51	0.48	0.47
Linoleic acid	%	1.90	1.80	1.70	1.80	1.70	1.60
Calcium	%	3.90	3.75	3.60	4.10	3.85	3.70
Phosphorus, available	%	0.42	0.39	0.37	0.40	0.38	0.36
Sodium	%	0.16-0.18	0.15-0.17	0.14-0.16	0.16-0.18	0.15-0.17	0.14-0.16
Chloride	%	0.15-0.30	0.15-0.30	0.15-0.30	0.15-0.30	0.15-0.40	0.15-0.50

* When changing rations production level is more important than the actual age of the flock. In the case of higher feed intake, a moderate-intensity diet is needed, while with lower feed consumption, the diet should be more concentrated.

Vitamins and Micronutrient Recommendation for TETRA SPERBER Parent Stock

FEED TYPE		Starter I-II	Grower	Pre-layer / Breeder I-II
ADDED VITAMINS				
Vitamin A	UI/kg	10000	10000	10000
Vitamin D ₃	UI/kg	3200	3200	3200
Vitamin E	mg/kg	50	30	60
Vitamin K	mg/kg	3	2	5
Vitamin B ₁	mg/kg	3	2	4
Vitamin B ₂	mg/kg	8	6	10
Vitamin B ₆	mg/kg	5	4	5
Vitamin B ₁₂	mcg/kg	20	15	30
Pantothenic acid	mg/kg	12	8	15
Niacin	mg/kg	40	30	50
Biotin	mcg/kg	200	150	200
Folic acid	mg/kg	2	1	2
Choline	mg/kg	300	300	300
Vitamin C*	mg/kg	-	-	50-200
Added trace elements				
Iron	mg/kg		50	
Manganese	mg/kg		100	
Copper	mg/kg		8	
Zinc	mg/kg		80	
Iodine	mg/kg		1	
Selenium	mg/kg		0.3	

* Vitamin C is recommended to prevent stress.

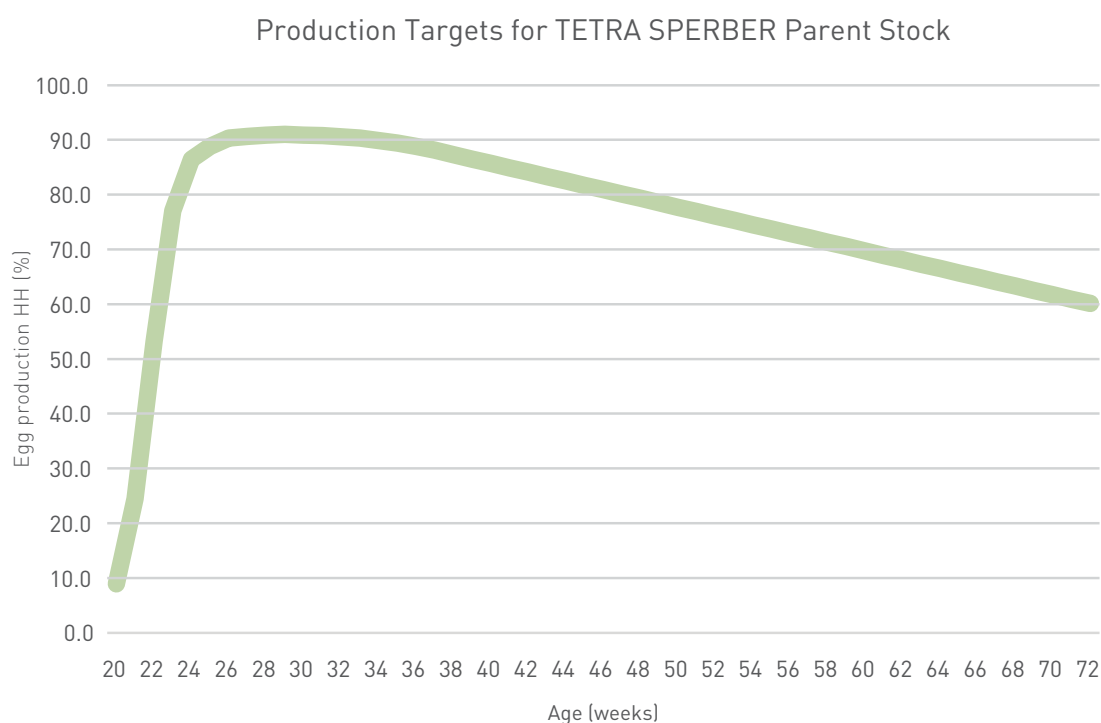
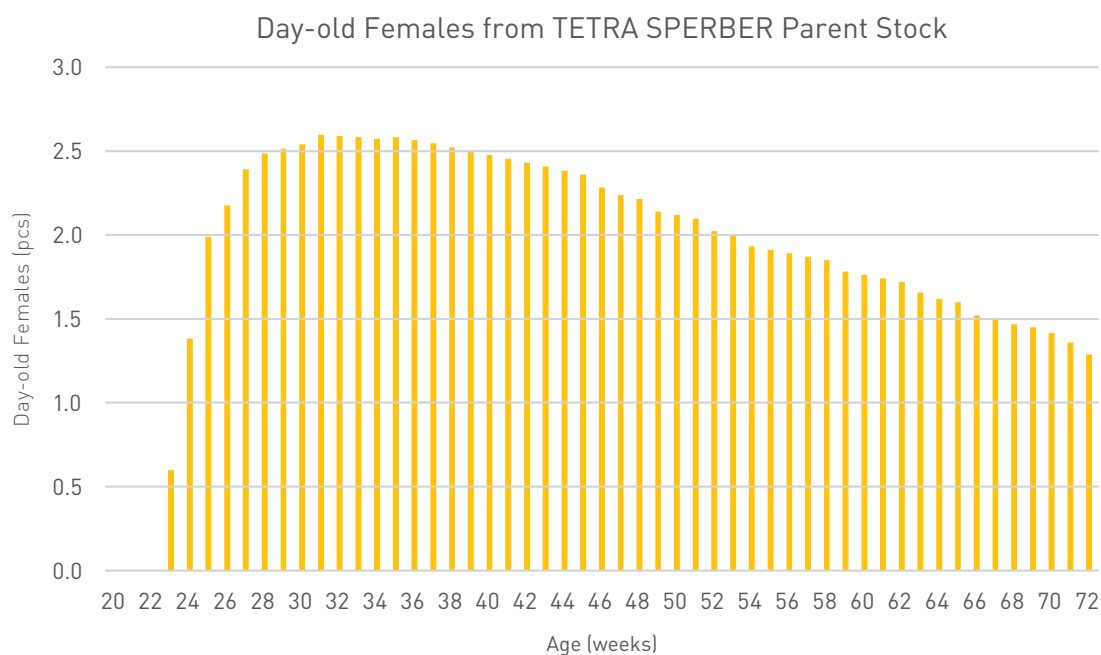
Supply of Fine and Coarse Limestone for TETRA SPERBER Parent Stock

Limestone	Fine	Coarse
	(<0.5 mm)	(1.5-3.5 mm)
Breeder I	35%	65%
Breeder II	30%	70%

* Recommended ratio within diet.

Production Targets for TETRA SPERBER Parent Stock

Age (weeks)	Egg Production		Eggs		Hatching Eggs			Hatch		Day-old Females	
	Hen Housed	Hen Day	Weekly	Cumu- lative	Weekly		Cumu- lative	% of all chicks	% of saleable females	Weekly	Cumu- lative
	%	%	pcs	pcs	%	pcs	pcs			pcs	pcs
20	8.9	8.9	0.6	0.6							
21	24.4	24.5	1.7	2.3							
22	53.2	53.4	3.7	6.1							
23	77.1	77.5	5.4	11.5	30.0	1.6	1.6	76.0	37.0	0.6	0.6
24	86.5	87.0	6.1	17.5	60.0	3.6	5.3	78.0	38.0	1.4	2.0
25	88.8	89.5	6.2	23.7	82.0	5.1	10.3	80.0	39.0	2.0	4.0
26	90.3	91.2	6.3	30.1	86.0	5.4	15.8	82.0	40.0	2.2	6.1
27	90.6	91.6	6.3	36.4	92.0	5.8	21.6	84.0	41.0	2.4	8.5
28	90.9	92.1	6.4	42.8	93.0	5.9	27.5	86.0	42.0	2.5	11.0
29	91.0	92.3	6.4	49.1	94.0	6.0	33.5	86.0	42.0	2.5	13.5
30	90.9	92.4	6.4	55.5	95.0	6.0	39.6	87.0	42.0	2.5	16.1
31	90.8	92.4	6.4	61.8	95.0	6.0	45.6	88.0	43.0	2.6	18.7
32	90.6	92.4	6.3	68.2	95.0	6.0	51.6	88.0	43.0	2.6	21.3
33	90.3	92.2	6.3	74.5	95.0	6.0	57.6	88.0	43.0	2.6	23.8
34	89.9	92.0	6.3	80.8	95.0	6.0	63.6	88.0	43.0	2.6	26.4
35	89.4	91.6	6.3	87.1	96.0	6.0	69.6	88.0	43.0	2.6	29.0
36	88.8	91.1	6.2	93.3	96.0	6.0	75.6	88.0	43.0	2.6	31.6
37	88.1	90.6	6.2	99.4	96.0	5.9	81.5	88.0	43.0	2.5	34.1
38	87.3	89.9	6.1	105.6	96.0	5.9	87.4	88.0	43.0	2.5	36.6
39	86.5	89.2	6.1	111.6	96.0	5.8	93.2	88.0	43.0	2.5	39.1
40	85.7	88.5	6.0	117.6	96.0	5.8	99.0	88.0	43.0	2.5	41.6
41	84.9	87.9	5.9	123.6	96.0	5.7	104.7	88.0	43.0	2.5	44.1
42	84.1	87.2	5.9	129.4	96.0	5.7	110.3	88.0	43.0	2.4	46.5
43	83.3	86.5	5.8	135.3	96.0	5.6	115.9	88.0	43.0	2.4	48.9
44	82.5	85.8	5.8	141.0	96.0	5.5	121.5	88.0	43.0	2.4	51.3
45	81.7	85.1	5.7	146.8	96.0	5.5	126.9	88.0	43.0	2.4	53.6
46	80.9	84.4	5.7	152.4	96.0	5.4	132.4	87.0	42.0	2.3	55.9
47	80.1	83.7	5.6	158.0	95.0	5.3	137.7	86.0	42.0	2.2	58.2
48	79.3	83.0	5.6	163.6	95.0	5.3	143.0	86.0	42.0	2.2	60.4
49	78.5	82.3	5.5	169.1	95.0	5.2	148.2	85.0	41.0	2.1	62.5
50	77.7	81.6	5.4	174.5	95.0	5.2	153.4	85.0	41.0	2.1	64.6
51	76.9	80.9	5.4	179.9	95.0	5.1	158.5	84.0	41.0	2.1	66.7
52	76.1	80.2	5.3	185.2	95.0	5.1	163.5	83.0	40.0	2.0	68.8
53	75.3	79.5	5.3	190.5	95.0	5.0	168.5	82.0	40.0	2.0	70.8
54	74.5	78.8	5.2	195.7	95.0	5.0	173.5	81.0	39.0	1.9	72.7
55	73.7	78.1	5.2	200.9	95.0	4.9	178.4	80.0	39.0	1.9	74.6
56	72.9	77.4	5.1	206.0	95.0	4.8	183.3	80.0	39.0	1.9	76.5
57	72.1	76.6	5.0	211.0	95.0	4.8	188.0	80.0	39.0	1.9	78.4
58	71.3	75.9	5.0	216.0	95.0	4.7	192.8	80.0	39.0	1.8	80.2
59	70.5	75.2	4.9	220.9	95.0	4.7	197.5	79.0	38.0	1.8	82.0
60	69.7	74.5	4.9	225.8	95.0	4.6	202.1	79.0	38.0	1.8	83.8
61	68.9	73.7	4.8	230.7	95.0	4.6	206.7	78.0	38.0	1.7	85.5
62	68.1	73.0	4.8	235.4	95.0	4.5	211.2	78.0	38.0	1.7	87.2
63	67.3	72.3	4.7	240.1	95.0	4.5	215.7	77.0	37.0	1.7	88.9
64	66.5	71.5	4.7	244.8	94.0	4.4	220.1	77.0	37.0	1.6	90.5
65	65.7	70.8	4.6	249.4	94.0	4.3	224.4	76.0	37.0	1.6	92.1
66	64.9	70.1	4.5	253.9	93.0	4.2	228.6	75.0	36.0	1.5	93.6
67	64.1	69.3	4.5	258.4	93.0	4.2	232.8	75.0	36.0	1.5	95.1
68	63.3	68.6	4.4	262.8	92.0	4.1	236.9	74.0	36.0	1.5	96.6
69	62.5	67.8	4.4	267.2	92.0	4.0	240.9	74.0	36.0	1.4	98.0
70	61.7	67.1	4.3	271.5	91.0	3.9	244.8	74.0	36.0	1.4	99.4
71	60.9	66.3	4.3	275.8	91.0	3.9	248.7	72.0	35.0	1.4	100.8
72	60.1	65.6	4.2	280.0	90.0	3.8	252.5	70.0	34.0	1.3	102.1



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